

for extended periods. All protective rubber gloves which contain defects shall be discarded and replaced prior to handling energized cables.

Subpart H—Grounding

§ 77.700 Grounding metallic sheaths, armors, and conduits enclosing power conductors.

Metallic sheaths, armors, and conduits enclosing power conductors shall be electrically continuous throughout and shall be grounded by methods approved by an authorized representative of the Secretary.

§ 77.700-1 Approved methods of grounding.

Metallic sheaths, armors, and conduits in resistance grounded systems, where the enclosed conductors are a part of the system, will be approved if a solid connection is made to the neutral conductor; in all other systems, the following methods of grounding will be approved:

- (a) A solid connection to metal waterlines having low resistance to earth;
- (b) A solid connection to a grounding conductor, other than the neutral conductor of a resistance grounded system, extending to a low-resistance ground field;
- (c) Any other method of grounding, approved by an authorized representative of the Secretary, which ensures that there is no difference in potential between such metallic enclosures and the earth.

§ 77.701 Grounding metallic frames, casings, and other enclosures of electric equipment.

Metallic frames, casings, and other enclosures of electric equipment that can become "alive" through failure of insulation or by contact with energized parts shall be grounded by methods approved by an authorized representative of the Secretary.

§ 77.701-1 Approved methods of grounding of equipment receiving power from ungrounded alternating current power systems.

For purposes of grounding metallic frames, casings and other enclosures of

equipment receiving power from ungrounded alternating current power systems, the following methods of grounding will be approved:

- (a) A solid connection between the metallic frame; casing, or other metal enclosure and the grounded metallic sheath, armor, or conduit enclosing the power conductor feeding the electric equipment enclosed;
- (b) A solid connection to metal waterlines having low resistance to earth;
- (c) A solid connection to a grounding conductor extending to a low-resistance ground field; and,
- (d) Any other method of grounding, approved by an authorized representative of the Secretary, which insures that there is no difference in potential between such metal enclosures and the earth.

§ 77.701-2 Approved methods of grounding metallic frames, casings, and other enclosures of electric equipment receiving power from a direct-current power system.

(a) The following methods of grounding metallic frames, casings, and other enclosures of electric equipment receiving power from a direct-current power system with one polarity grounded will be approved:

- (1) A solid connection to the grounded power conductor of the system; and,
- (2) Any other method, approved by an authorized representative of the Secretary, which insures that there is no difference in potential between such metal enclosures and the earth.

(b) A method of grounding of metallic frames, casings, and other enclosures of electric equipment receiving power from a direct-current power system other than a system with one polarity grounded, will be approved by an authorized representative of the Secretary if the method insures that there is no difference in potential between such frames, casings, and other enclosures, and the earth.

§ 77.701-3 Grounding wires; capacity.

Where grounding wires are used to ground metallic sheaths, armors, conduits, frames, casings, and other metallic enclosures, such grounding wires will be approved if: